



STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

ATTORNEYS AT LAW

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ROBERT GREENE STERNE LICHN M. 10.ERT EDWARD L KESSLER Upro∈ Al Goudste N SAMUEL L FOX*** DA. D W.S. CORNWELL ROBERT W ESMOND TRACK GENE G. DURK N. MICHELE A C'MBALA M CHAEL B RAY ROBERT EL SOKOHU ER J K STEFFE MICHAEL QILEE STEVEN R LUDW G

L NOA EL ALTORN ROBERT C. M. LLON G. MICHAEL . MESS NISER T MOTHY L SHEA UR PATRICK E GARRETT JEFFREY * MELVEY* HEC . MRAUS JEFFREY A KUR N PATRICK DID BRIEN CRYSTAL D. SAYLES

EDWARD & FEE Albert _ Fires. DONALD R. BANCW T FETER A JACKMAN MOULY A MOCALL TERESA U MEDLER LEFFREY S MEALER MENORICK PLEATTERSON DONALD U FEATHERSTONE SUZANNE E Z SKA** VINCENT L. CAPCANT COHN A MARROUN* LAWRENCE B BUGA SKY ALBERT U FABULO II* ELDORA ELL NON FLOYD*

★ RU SELL 1 & NEELL CHIMA DE PALA BRIAN L. DEL BUCKT! . RUIL BEASTON* RYAN S STAMPER* RES NALE D. LUCAS* THESSURE A WOSS MAREN R MARKOW CZ** ANTREA . MAMAGE ** NANCE LE THE EL PABETH U MAANES** MARK P TERRY**

JUSEPH M. INFAL Doubles M. A. Jeuns ANN E BUMMERF FLO** SANTH A MI BUUCHEZ** MELENE C. CARLSON** BRUTH E CHAIKER** SABEL LONGEMONTH** MATTHEW U. DOWD! TIMETHAL MICHEER** AARON L S HWATZ**

*L MITED TO MATTER AND PASSEED NOT BEFORE FEDERAL LATT & ASEN ES **RES TERED PATENT AGENT

September 21, 2001

Writer's Direct Number: (202) 371-2629 INTERNET ADDRESS:

DONE a SKGF.COM

Commissioner for Patents Washington, D.C. 20231

> U.S. Utility Patent Application Re:

> > Appl. No. 09 753.664; Filed: January 4, 2001

High Density Metal Capacitor Using Via Etch Stopping Layer as Field Dielectric in Dual-Damascence Interconnect Process

Liming Tsau Inventor: 1875.023000 Our Ref:

Sir:

In reply to the "Notice of Incomplete Reply" dated August 31, 2001. Applicant submits the following documents for appropriate action by the U.S. Patent and Trademark Office:

- Copy of Notice of Incomplete Reply: 1.
- Reply to Notice of Incomplete Reply:
- Copies of the following documents filed July 23, 2001: 3.
 - Copy of the Notice to File Corrected Application Papers: a.
 - Letter to PTO Draftsman: Submission of Formal Drawings: h.
 - Five (5) sheets of formal drawings, (consisting of Figures 1-15): C.
 - An original executed Power of Attorney from Assignee: d.
 - An original executed Certificate under 37 C.F.R. § 3.73(b): and Ċ.
 - ſ. Date-Stamped return postcard; and
- Return postcard. 4.

Commissioner for Patents September 21, 2001 Page 2

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. If extensions of time under 37 C.F.R. § 1.136 other than those otherwise provided for herewith are required to prevent abandonment of the present patent application, then such extensions of time are hereby petitioned, and any fees therefor are hereby authorized to be charged to our Deposit Account No. 19-0036. A duplicate copy of this letter is enclosed.

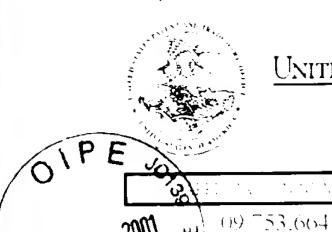
Respectfully submitted.

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Donald J. Featherstone Attorney for Applicants

Registration No. 33.876

P. USERS MICHELLE DON 1875-1875 (230%) miskgtevt wpd 8KGF Rev. 4-27-00



United States Patent and Trademark Office

ERNE, KESSLER, GOLDSTEIN & FOX PLLC

1100 NEW YORK AVENUE, N.W., SUITE 600

WASHINGTON, DC 20005-3934

COMMISSIONER FOR PATENTS ON TEC STATES PATENT AND TRACEMARY OFFICE

response to the second of the second

53.604 (1.04.2001) Liming Tsau

1875 (23) (00)

CONFIRMATION NO. 1902

FORMALITIES LETTER

•OC000000006501627

Date Mailed: 08/31/2001

NOTICE OF INCOMPLETE REPLY (NONPROVISIONAL)

Filing Date Granted

The U.S. Patent and Trademark Office has received your reply on to the Notice mailed and it has been entered into the nonprovisional application. The reply, however, doesnot include the following items required in the Notice.

The period of reply remains as set forth in the Notice. You may, however, obtain EXTENSIONS OF TIME under the provisions of 37 CFR 1.136 (a) accompanied by the appropriate fee (37 CFR 1.17(a)).

A complete reply must be timely filed to prevent ABANDONMENT of the above-identified application.

- Substitute drawings in compliance with 37 CFR 1.84 because:
 - drawing sheets do not have the appropriate margin(s) (see 37 CFR 1.84(g)). Each sheet must include a top margin of at least 2.5 cm. (1 inch). a left side margin of at least 2.5 cm. (1 inch), a right side margin of at least 1.5 cm. (5/8 inch), and a bottom margin of at least 1.0 cm. (3/8 inch);

A copy of this notice MUST be returned with the reply.

Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONS!



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Liming Tsau

Appl. No. 09 753,664

Filed: January 4, 2001

For: High Density Metal Capacitor

Using Via Etch Stopping Layer as

Field Dielectric in Dual-

Damascence Interconnect Process

Confirmation No.: 1902

Art Unit: 2812

Examiner: To be assigned

Atty. Docket: 1875.0230000

Reply to Notice of Incomplete Reply

Commissioner for Patents Washington, D.C. 20231

Sir:

In reply to the Notice of Incomplete Reply dated August 31, 2001. Applicant submits that the Notice of Incomplete Reply stating a requirement for substitute drawings was issued in error.

In a September 6, 2001, telephone conversation with the Office of Initial Patent Examination, the undersigned was informed that, according to the U.S. Patent and Trademark Office database, the formal drawings filed in response to the Notice to File Corrected Application Papers on July 23, 2001, had not yet been matched up with the file. The undersigned was then instructed to submit copies of the papers previously filed in response to the Notice to File Corrected Application Papers as proof that the drawing requirement has already been met. Applicant therefore submits concurrently herewith copies of all documents filed on July 23, 2001.

Applicants believe the issuance of the Notice of Incomplete Reply was a U.S. Patent and Trademark Office mistake and therefore the payment of extension fees is not required.

Respectfully submitted.

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Donald J. Featherstone Attorney for Applicant Registration No. 33,876

Date: 9/21/01.

1100 New York Avenue, N.W. Suite 600 Washington, D.C. 20005-3934 (202) 371-2600

P: USERS MICHELLE DON 1875-1875 (23)(00)(), reply wpd



STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

ATTORNEYS AT LAW

CU NEW YORK AVENUE NIW . NASH NOTON C. T. BOW 15/30/34

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ROBERT GREENE STERNE EDWARD - PESSLER JORGE A GOLDSTEIN SAMUEL L FOX *** DAVID KS CORNWELL ROBERT W ESMOND TRACY-GENE G DURKIN MICHELE A CIMBALA MICHAEL B RAY ROBERT E SOKOHL ERIC K. STEFFE MICHAEL Q LEE STEVEN R LUDWIG

17.44 % 44 ₩ ...~N:3 MICHAEL / MESSINGER JUDITH U KIM TIMOTHY J SHEA, JR DONALD R MCPHAIL PATRICK E GARRETT JEFFREY T HELVEY* HEIDI L KRAUS JEFFREY R KURIN RAYMOND MILLIEN PATRICK D. O'BRIEN

LAWRENCE B. B. GARRY CRYSTAL D. SAYLES EDWARD W YEE ALBERT . FERRO* DONALD R BANDWIT PETER A JACKMAN MOLLY A MCCALL TERESA U. MEDLER JEFFREY S WEAVER KRISTIN K VIDOVICH KENDRICK P PATTERSON DONALD J FEATHERSTONE ANDREA J KAMAGE ** GRANT E. REED

. NIENT _ CAR AN Гоны А. НАВВОЦЫ® ALBERT _ FASUL II* ELDORA ELLISON FLOYD W RUSSELL SWINDELL THOMAS C FIALA BRIAN J DEL BUONO* VIRGIL L BEASTON* RYAN J STAMPER* KAREN R MARKOWICZ** SUZANNE E ZISKA** NANCY J LEITH **

EL ZABETH U HAANES** MARK P. TERRATE JOSEPH M. CONRAD HIS DOUGLAS M WILSON ** REGINALD D LUCAS** ANN E SUMMERFIELD** CYNTHIA M BOUCHEZ* HELENE C. CARLSON** BRUCE E CHALKER** DUSTIN T. JOHNSON " MATTHEW J DOWD **

*LIMITED TO MATTERS AND PROCEEDINGS BEFORE FEDERAL COURTS & AGENCIES **REGISTERED PATENT AGENT ***SENIOR COUNSEL

Writer's Direct Number: (202) 371-2629 **INTERNET ADDRESS:** DONE WSKGF.COM

July 23, 2001

Commissioner for Patents Washington, D.C. 20231

> Re: U.S. Utility Patent Application

> > Appl. No. 09/753,664; Filed: January 4, 2001

High Density Metal Capacitor Using Via Etch Stopping Layer as Field Dielectric in Dual-Damascence Interconnect Process

Liming Tsau Inventor:

Our Ref: 1875.023000

Sir:

In reply to the "Notice to File Corrected Application Papers." dated May 21, 2001, Applicant submits the following documents for appropriate action by the U.S. Patent and Trademark Office:

- Copy of the Notice to File Corrected Application Papers; 1.
- 2. Letter to PTO Draftsman: Submission of Formal Drawings;
- 3. Five (5) sheets of formal drawings, (consisting of Figures 1-15);
- 4. An original executed Power of Attorney from Assignee;
- An original executed Certificate under 37 C.F.R. § 3.73(b); and 5.
- Return postcard. 6.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier.

Commissioner for Patents July 23, 2001 Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. If extensions of time under 37 C.F.R. § 1.136 other than those otherwise provided for herewith are required to prevent abandonment of the present patent application, then such extensions of time are hereby petitioned, and any fees therefor are hereby authorized to be charged to our Deposit Account No. 19-0036. A duplicate copy of this letter is enclosed.

Respectfully submitted.

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

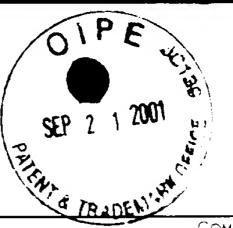
Donald J. Featherstone Attorney for Applicants

Registration No. 33,876

P.\USERS\MICHELLE-DON.1875 1875 0230000 nfcap.wpd SKGF Rev. 4.27.00



United States Patent and Trademark Office



Page 1 of 1

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER

FILING RECEIPT DATE

FIRST NAMED APPLICANT

1975 0220000

09/753,664

01/04/2001

Liming Tsau

1875.0230000

ATTORNEY DOCKET NUMBER

26111 STERNE, KESSLER, GOLDSTEIN & FOX PLLC 1100 NEW YORK AVENUE, N.W., SUITE 600 WASHINGTON, DC 20005-3934



Date Mailed: 05/21/2001

NOTICE TO FILE CORRECTED APPLICATION PAPERS

Filing Date Granted

This application has been accorded an Application Number and Filing Date. The application, however, is informal since it does not comply with the regulations for the reason(s) indicated below. Applicant is given **TWO MONTHS** from the date of this Notice within which to correct the informalities indicated below. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a)

The required item(s) identified below must be timely submitted to avoid abandonment:

- Substitute drawings in compliance with 37 CFR 1.84 because:
 - drawing sheets do not have the appropriate margin(s) (see 37 CFR 1.84(g)). Each sheet must include a top margin of at least 2.5 cm. (1 inch), a left side margin of at least 2.5 cm. (1 inch), a right side margin of at least 1.5 cm. (5/8 inch), and a bottom margin of at least 1.0 cm. (3/8 inch);

A copy of this notice MUST be returned with the reply.

Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE

COPY

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Liming Tsau

Appl. No. 09,753,664

Filed: January 4, 2001

For: High Density Metal Capacitor

Using Via Etch Stopping Layer as Field Dielectric in Dual-Damascence

SEP 2 1 2001

Interconnect Process

Confirmation No. 1902

Art Unit: 2812

Examiner: To be assigned

Atty. Docket: 1875.0230000

Letter to PTO Draftsman: Submission of Formal Drawings

Commissioner for Patents Washington, D.C. 20231

Sir:

Submitted herewith are seven (5) sheets of formal drawings with Figures 1-15, corresponding to the drawings submitted with the above-captioned application. Identification of the drawings is provided in accordance with 37 C.F.R. § 1.84(c). Acknowledgment of the receipt, approval, and entry of these formal drawings into this application is respectfully requested.

It is not believed that an extension of time is required, other than any already provided herewith. However, if an extension of time is needed to prevent abandonment of the application, then such extension of time is hereby petitioned. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this Letter is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Donald J. Featherstone Attorney for Applicants

Registration No. 33,876

Date: 7/23/01.

1100 New York Avenue, N.W.

Suite 600

Washington, D.C. 20005-3934

(202) 371-2600

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Due Date: July 21, 2001

Art Unit: 2812

To be assigned Examiner:

Docket: 1875.0230000

Atty: DJF

For: High Density Metal Capacitor Using Via Etch Stopping Layer as Field Dielectric in Dual-

Damascence Interconnect Process

When receipt stamp is placed hereon, the USPTO acknowledges receipt of the following documents:

SKGF Cover Letter (in duplicate); Į.

Filed:

Applicant:

Application No.:

Copy of the Notice to File Corrected Application Papers:

Liming Tsau

09 753,664

January 4, 2001

Letter to PTO Draftsman: Submission of Formal Drawings: 3.

Five (5) sheets of formal drawings, (consisting of Figures 1-15); 4

An original executed Power of Attorney from Assignee: 5

An original executed Certificate under 37 C.F.R. § 3.73(b): and 6.

Return postcard.



Please Date Stamp And Return To Our Courier

POWER OF ATTORNEY FROM ASSIGNEE



Broadcom Corporation, a corporation of California, having a principal place of business at 16215 Alton Parkway. Irvine, California 92618-3616, is assignee of the entire right, title and interest for the United States of America (as defined in 35 U.S.C. § 100), by reason of an Assignment to the Assignee executed on December 29, 2000 of an invention known as High Density Metal Capacitor Using Via Etch Stopping Layer as Field Dielectric in Dual-Damascence Interconnect Process (Attorney Docket No. 1875.0230000), which is disclosed and claimed in a patent application of the same title by the inventor Liming Tsau (said application filed January 4, 2001 at the U.S. Patent and Trademark Office, having Application Number 09/753,664).

The Assignee hereby appoints the following U.S. attorneys to prosecute this application and any continuation, divisional, continuation-in-part, or reissue application thereof, and to transact all business in the U.S. Patent and Trademark Office connected therewith: Robert Greene Sterne, Esq., Reg. No. 28,912; Edward J. Kessler, Esq., Reg. No. 25,688; Jorge A. Goldstein, Esq., Reg. No. 29,021; Samuel L. Fox, Esq., Reg. No. 30,353; David K.S. Cornwell, Esq., Reg. No. 31,944; Robert W. Esmond, Esq., Reg. No. 32,893; Tracy-Gene G. Durkin, Esq., Reg. No. 32,831; Michael A. Cimbala, Esq., Reg. No. 33,851; Michael B. Ray, Esq., Reg. No. 33,997; Robert E. Sokohl, Esq., Reg. No. 36,013; Eric K. Steffe, Esq., Reg. No. 36,688, Michael Q. Lee, Esq., Reg. No. 35,239; Steven R. Ludwig, Esq., Reg. No. 36,203; John M. Covert, Esq., Reg. No. 38,759; and Linda E. Alcorn, Esq., Reg. No. 39,588. The Assignee hereby grants said attorneys the power to insert on this Power of Attorney any further identification that may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

Send correspondence to:

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 New York Avenue, N.W. Suite 600 Washington, D.C. 20005-3934 U.S.A.

Direct phone calls to 202-371-2600.

IOK.	broadcom Corporation	
SIGNATURE:	Montell	
BY:	William Ruehle	
TITLE:	Vice President & CFO	
DATE:	April 13, 2001	

Certificate Under 37 C.F.R. § 3.73(B) A TRIBLE NOTE OF TRANSPORTED TO THE OFFICE OF THE OFFICE OF TRANSPORTED TO THE OFFICE OF THE OFF

Applicant Patent Owner: Liming Tsau	- DEW
Application No. Patent No.: 09 753,664	Filed Issue Date: January 4, 2001
Entitled: High Density Metal Capacitor Using V Damascence Interconnect Process	ia Etch Stopping Layer as Field Dielectric in Dual-
Broadcom Corporation	
(Name of Assignee)	acorporation
states that it is:	(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)
1. [X] the assignee of the entire right, title, and in	nterest, or
2. [] an assignee of an undivided part interest	
in the patent application/patent identified above by	virtue of either:
A. [X] An Assignment from the inventor(s) of the	patent application patent identified above. The assignmer Office at Reel <u>011420</u> . Frame <u>0610</u> , or for which a copy
OR	
B.[] A chain of title from the inventor(s) of the passignee as shown below:	patent application/patent identified above to the current
1. From: To:	
and document was recorded in the	Patent and Trade. Loop
Reel, Frame	or for which a copy thereof is attached.
2. From: To:	
accument was recorded in the	Patent and Trademont coor
Reel Frame	or for which a copy thereof is attached.
3. From: To:	Patent and Tools Look
Reel, Frame	or for which a copy thereof is attached.
[] Additional documents in the chain of title	
Copies of assignments or other documents in the capacity of th	chain of title are attached
	SCATTER AND A 1
the assignment is to be recorded in the record	Division in accordance with 37 CFR Part 3, if
ne undersigned (whose title is supplied below) is emp	powered to act on behalf of the assignee.
April 13, 2001	
me: William Ruehle	
le: Vice President & CFO	
nature:	

PAUSERS MICHELLE DON 1875 1875 SKGF Rev 3-31 00 mac